

REMARKS

Claims 1-32 are pending in the Application. Claim 32 is withdrawn from consideration. Claims 15-18 are objected to. Claims 8 and 25 are rejected under 35 U.S.C. §112, second paragraph. Claims 1-7, 10-14, 19-21 and 24-31 are rejected under 35 U.S.C. §103(a). Further, claims 1 and 6-11, 14, 20-23 and 30 are provisionally rejected under non-statutory obviousness-type double patenting. Applicant respectfully traverses these rejections for at least the reasons stated below and respectfully requests the Examiner to reconsider and withdraw these rejections.

I. ELECTION/RESTRICTION:

Applicant confirms that Applicant elects to prosecute Group I, claims 1-31.

II. OBJECTIONS TO THE CLAIMS:

The Examiner objects to claims 15-18 as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. Office Action (12/19/2006), page 3. Applicant amended claim 15, as indicated above, to refer to the other claims in the alternative only. Hence, Applicant respectfully asserts that claims 15-18 are in proper form and respectfully requests the Examiner to withdraw the objections to claims 15-18.

The amendment to claim 15 was to correct a typographical mistake and was not to overcome prior art. Hence, no prosecution history estoppel arises from the amendment to claim 15. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 62 U.S.P.Q.2d 1705, 1711-12 (2002); 56 U.S.P.Q.2d 1865, 1870 (Fed. Cir. 2000). Further, the amendment made to claim 15 was not made for a substantial reason related to patentability and therefore no prosecution history estoppel arises from such an amendment. See *Festo Corp.*, 62 U.S.P.Q.2d 1705 at 1707 (2002); *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 41 U.S.P.Q.2d 1865, 1873 (1997).

III. REJECTIONS UNDER 35 U.S.C. §112, SECOND PARAGRAPH:

The Examiner rejects claims 8 and 25 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Office Action

(12/19/2006), page 3. In particular, the Examiner asserts that the limitation of "the coating forming material" in claim 8 lacks sufficient antecedent basis. *Id.* Applicant amended claim 8, as indicated above, to clarify that the limitation of "the coating forming material" refers to "the atomised coating forming material."

Further, the Examiner asserts that the limitation of "surrounding apparatus" in claim 25 is unclear. *Id.* Applicant amended claim 25, as indicated above, to remove the limitation of "surrounding apparatus" thereby clarifying and broadening the scope of claim 25.

As a result of the above-mentioned amendments, Applicant respectfully asserts that claims 8 and 25 particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Accordingly, Applicant respectfully requests the Examiner to withdraw the rejections to claims 8 and 25 under 35 U.S.C. §112, second paragraph.

Further, the amendment to claim 8 was to correct a typographical mistake and was not to overcome prior art. Further, the amendment to claim 25 was to broaden the scope of the claim limitations and was not to overcome the prior art. Hence, no prosecution history estoppel arises from the amendments to claims 8 and 25. *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 62 U.S.P.Q.2d 1705, 1711-12 (2002); 56 U.S.P.Q.2d 1865, 1870 (Fed. Cir. 2000). Further, the amendments made to claims 8 and 25 were not made for a substantial reason related to patentability and therefore no prosecution history estoppel arises from such amendments. *See Festo Corp.*, 62 U.S.P.Q.2d 1705 at 1707 (2002); *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 41 U.S.P.Q.2d 1865, 1873 (1997).

IV. REJECTIONS UNDER 35 U.S.C. §103(a):

The Examiner has rejected claims 1, 3-7, 10, 11, 14, 25, 27 and 30 under 35 U.S.C. §103(a) as being unpatentable over Gitzhofer et al. (U.S. Patent No. 5,609,921) (hereinafter "Gitzhofer") in view of Heinecke et al. (U.S. Patent No. 4,824,690) (hereinafter "Heinecke"). The Examiner has further rejected claims 1-4, 10, 12, 13, 19-21, 24 and 26-31 under 35 U.S.C. §103(a) as being unpatentable over Goodwin et al. (U.S. Patent Application Publication No. 2004/0022945) (hereinafter

"Goodwin") in view of Badyal et al. (U.S. Patent No. 6,551,950) (hereinafter "Badyal"). Additionally, the Examiner rejects claim 22 under 35 U.S.C. §103(a) as being unpatentable over Gitzhofer and Heinecke in view of Wang (U.S. Patent No. 5,260,105). Applicant respectfully traverses these rejections for at least the reasons stated below and respectfully requests that the Examiner reconsider and withdraw these rejections.

A. Claims 1, 3-7, 10, 11, 14, 25, 27 and 30 are not properly rejected under Gitzhofer in view of Heinecke.

1. Examiner's motivation for modifying Gitzhofer with Heinecke to include the missing claim limitation of claims 1 and 27 is insufficient to establish a *prima facie* case of obviousness.

Most if not all inventions arise from a combination of old elements. *See In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Obviousness is determined from the vantage point of a hypothetical person having ordinary skill in the art to which the patent pertains. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Therefore, an Examiner may often find every element of a claimed invention in the prior art. *Id.* However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. *See Id.* In order to establish a *prima facie* case of obviousness, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). That is, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some case, the nature of the problem to be solved, to modify the reference or to combine reference teachings. *See In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Whether the Examiner relies on an express or an implicit showing, the Examiner must provide particular findings related thereto. *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

The Examiner admits that Gitzhofer does not teach "that the exciting medium is pulsed" as recited in claim 1 and similarly in claim 27. Office Action (12/19/2006),

page 5. The Examiner asserts that Heinecke teaches the above-cited missing claim limitation. *Id.* The Examiner's motivation for modifying Gitzhofer with Heinecke to include the above-cited claim limitation is "in order to deposit coatings onto a heat sensitive substrate." Office Action (12/19/2006), page 5. The Examiner's motivation is insufficient to establish a *prima facie* case of obviousness in rejecting claims 1, 3-7, 10, 11, 14, 25 and 30.

The Examiner' motivation ("in order to deposit coatings onto a heat sensitive substrate") does not provide reasons, as discussed further below, that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Gitzhofer to include the above-indicated missing claim limitation of claims 1 and 27. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1, 3-7, 10, 11, 14, 25 and 30. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

Gitzhofer addresses the problem of having plasma deposition of particulate materials, such as ceramic and metallic powders. Column 1, lines 21-30. Particulate materials refers to tiny particles of solid or liquid suspended in a gas. See <http://en.wikipedia.org/wiki/Particulate>. The Examiner has not provided any reasons as to why one skilled in the art would modify Gitzhofer (which teaches plasma deposition of particulate materials, such as ceramic and metallic powders) to have an exciting medium that is pulsed (missing claim limitation). The Examiner's motivation ("in order to deposit coatings onto a heat sensitive substrate") does not provide such reasoning.

Why would the reason to modify Gitzhofer (whose purpose is to deposit particulate materials, such as ceramic and metallic powders using a plasma deposition method) to have an exciting medium that is pulsed (missing claim limitation) be to deposit coatings onto a heat sensitive substrate? Gitzhofer is not concerned with depositing inorganic coatings onto a heat sensitive substrate, such as plastics¹. There

¹ The Examiner cites column 1, lines 28-45 of Heinecke as support for the Examiner's motivation. Heinecke teaches that the deposition of good inorganic coatings in normal discharges requires substrate temperatures in excess of 250°C. Column 1, lines 28-30. Heinecke further teaches using high intensity pulsed radio frequency plasma techniques to aid in the use of plasma in surface processing of many materials and in particular heat sensitive materials such as plastics. Column 1,

is no language in Gitzhofer that even suggests depositing coatings onto a heat sensitive substrate, such as plastics. The Examiner cannot completely ignore the teachings of Gitzhofer in concluding it would have been obvious to modify Gitzhofer to include the missing claim limitation of claims 1 and 27.² Hence, the Examiner's motivation does not provide reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Gitzhofer to include the missing claim limitation of claims 1 and 27. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1, 3-7, 10, 11, 14, 25 and 30. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

2. Claims 3-7, 10, 11, 14 and 25 are patentable over Gitzhofer in view of Heinecke for at least the reasons that claim 1 is patentable over Gitzhofer in view of Heinecke.

Claims 3-7, 10, 11, 14 and 25 each recite combinations of features of independent claim 1, and hence claims 3-7, 10, 11, 14 and 25 are patentable over Gitzhofer in view of Heinecke for at least the above-stated reasons that claim 1 is patentable over Gitzhofer in view of Heinecke.

3. Claim 30 is patentable over Gitzhofer in view of Heinecke for

lines 36-41.

² Applicant respectfully requests Examiner Burkhart to respond to the following example. For example, suppose that the invention of a super soaker gun (essentially a plastic gun that shoots water) was never developed and an Applicant filed for a patent application on the super soaker gun. Applicant claims a plastic gun with a container of water that shoots water. The Examiner cites a primary reference that teaches a plastic gun that shoots darts and cites a secondary reference that teaches a plastic toy that contains a container of water. Since the primary reference does not teach a container filled with water, the Examiner cites the secondary reference as teaching this missing claim limitation. The secondary reference specifically states that the purpose of the container is to carry water. The Examiner then concludes that it would have been obvious to modify the primary reference with the secondary reference in order to carry water. The Examiner believes that he/she has established a *prima facie* case of obviousness since the Examiner has found a reason to have a container of water. However, the Examiner is completely ignoring the teaching of the primary reference. Why would one skilled in the art modify a plastic gun that shoots darts to have a container of water? This is the key question to answer. While having a container of water may be used to carry water, that is irrelevant as far as the purpose of the primary reference. Simply citing to a passage in the secondary reference that discusses the purpose of that secondary reference may not be sufficient evidence for an obviousness rejection. After all, surely there is a reason as to why the secondary reference teaches the missing claim limitation or else why would it include it? The Examiner must explain the connection between the teachings of the primary reference and the rationale of the secondary reference for including the missing claim limitation. Otherwise, everything can be deemed obvious and virtually nothing can be patented.

at least the reasons that claim 27 is patentable over Gitzhofer in view of Heinecke.

Claim 30 recites combinations of features of independent claim 27, and hence claim 30 is patentable over Gitzhofer in view of Heinecke for at least the above-stated reasons that claim 27 is patentable over Gitzhofer in view of Heinecke.

4. Claim 6 is patentable over Gitzhofer in view of Heinecke.

Applicant respectfully asserts that Gitzhofer and Heinecke, taken singly or in combination, do not teach or suggest "at least one additional material is added into the atomised coating forming material" as recited in claim 6. The Examiner cites column 2, lines 27-31 of Gitzhofer as teaching the above-cited claim limitation. Office Action (12/19/2006), page 4. Applicant respectfully traverses and asserts that Gitzhofer instead teaches providing a suspension of a material to be deposited, this suspension comprising small solid particles of that material dispersed into a liquid or semi-liquid carrier substance. Column 2, lines 27-31. There is no language in the cited passage that teaches at least one additional material is added to the atomised coating forming material. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claim 6, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

5. Claim 7 is patentable over Gitzhofer in view of Heinecke.

Applicant respectfully asserts that Gitzhofer and Heinecke, taken singly or in combination, do not teach or suggest "the additive material acts as a buffer to maintain the process pressure and/or carry the atomised forming material" as recited in claim 7. The Examiner cites column 2, lines 27-31 of Gitzhofer as teaching the above-cited claim limitation. Office Action (12/19/2006), page 4. Applicant respectfully traverses and asserts that Gitzhofer instead teaches providing a suspension of a material to be deposited, this suspension comprising small solid particles of that material dispersed into a liquid or semi-liquid carrier substance. Column 2, lines 27-31. There is no language in the cited passage that teaches that the additive material acts as a buffer. Neither is there any language in the cited passage

that teaches that the additive material acts as a buffer to maintain the process pressure. Neither is there any language in the cited passage that teaches that the additive material acts as a buffer to maintain the process pressure and/or carry the atomised forming material. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claim 7, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

B. Claims 1-4, 10, 12, 13, 19-21, 24, 27 and 28-31 are not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Goodwin in view of Badyal.

1. Examiner's motivation for modifying Goodwin with Badyal to include the missing claim limitation of claims 1 and 27 is insufficient to establish a *prima facie* case of obviousness.

As stated above, most if not all inventions arise from a combination of old elements. *See In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Obviousness is determined from the vantage point of a hypothetical person having ordinary skill in the art to which the patent pertains. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Therefore, an Examiner may often find every element of a claimed invention in the prior art. *Id.* However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. *See Id.* In order to establish a *prima facie* case of obviousness, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). That is, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some case, the nature of the problem to be solved, to modify the reference or to combine reference teachings. *See In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Whether the Examiner relies on an express or an implicit showing, the Examiner must provide particular findings related thereto. *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

The Examiner admits that Goodwin does not teach "that the exciting medium is pulsed" as recited in claim 1 and similarly in claim 27. Office Action (12/19/2006), page 7. The Examiner asserts that Badyal teaches the above-cited missing claim limitation. *Id.* The Examiner's motivation for modifying Goodwin with Badyal to include the above-cited claim limitation is "in order to achieve a greater level of structural retention." *Id.* The Examiner's motivation is insufficient to establish a *prima facie* case of obviousness in rejecting claims 1-4, 10, 12, 13, 19-21, 24, 27 and 28-31.

The Examiner cites column 4, lines 49-56 of Badyal as support for the Examiner's motivation. Office Action (12/19/2006), page 7. Badyal teaches that in the case of the polymerization of compounds of formula (III) above, that low power pulsed plasma polymerization produces well-adhered coatings that exhibit excellent water and oil repellency. Column 4, lines 49-52. Badyal further teaches that the greater level of structural retention in the case of pulsed plasma polymerization can be attributed to free radical polymerization occurring during the duty cycle off-time and less fragmentation during the on-time. Column 4, lines 53-56. Hence, Badyal teaches that low power pulsed plasma polymerization produces well-adhered coatings that exhibit excellent water and oil repellency. There is no language in Badyal (and in particular column 4, lines 49-56) that makes any suggestion of pulsing the exciting medium (missing claim limitation) in order to achieve a greater level of structural retention. Instead, Badyal teaches that low power pulsed plasma polymerization produces well-adhered coatings that exhibit excellent water and oil repellency. Badyal further teaches that the greater level of structural retention in the case of pulsed plasma polymerization can be attributed to free radical polymerization occurring during the duty cycle off-time and less fragmentation during the on-time. Hence, the Examiner's source of motivation (column 4, lines 49-56 of Badyal) does not provide reasons as to why one skilled in the art would modify Goodwin to include the missing claim limitation of claims 1 and 27. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-4, 10, 12, 13, 19-21, 24, 27 and 28-31. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

Further, the Examiner's motivation ("in order to achieve a greater level of structural retention") does not provide reasons, as discussed further below, that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Goodwin to include the above-indicated missing claim limitation of claims 1 and 27. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-4, 10, 12, 13, 19-21, 24, 27 and 28-31. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

Goodwin addresses the problem of having the plasma surface treatments require the substrate to be under conditions of reduced pressure thereby making surface treatments expensive. [0003-0004]. Goodwin overcomes this problem by forming a coating on a substrate using an atmospheric pressure plasma discharge. [0006]. The Examiner has not provided any reasons as to why one skilled in the art would modify Goodwin (which teaches forming a coating on a substrate using an atmospheric pressure plasma discharge) to have an exciting medium that is pulsed (missing claim limitation). The Examiner's motivation ("in order to achieve a greater level of structural retention") does not provide such reasoning.

Why would the reason to modify Goodwin (whose purpose is to form a coating on a substrate using an atmospheric pressure plasma discharge) to have an exciting medium that is pulsed (missing claim limitation) be to achieve a greater level of structural retention? Goodwin is not concerned with achieving a greater level of structural retention. Further, the Examiner's stated motivation is somewhat misleading as previously discussed. Badyal teaches that low power pulsed plasma polymerization produces well-adhered coatings that exhibit excellent water and oil repellency. Hence, the key question that must be asked is why would the reason to modify Goodwin (whose purpose is to form a coating on a substrate using an atmospheric pressure plasma discharge) to have an exciting medium that is pulsed (missing claim limitation) be to have a low power pulsed plasma polymerization producing well-adhered coatings that exhibit excellent water and oil repellency? Goodwin is not concerned with producing well-adhered coatings that exhibit excellent water and oil repellency or in providing a low power pulsed plasma polymerization. The Examiner cannot completely ignore the teachings of Goodwin in

concluding it would have been obvious to modify Goodwin to include the missing claim limitation of claims 1 and 27. Hence, the Examiner's motivation does not provide reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Goodwin to include the missing claim limitation of claims 1 and 27. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 1-4, 10, 12, 13, 19-21, 24, 27 and 28-31. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

2. Claims 2-4, 10, 12, 13, 19-21, 24 and 26 are patentable over Goodwin in view of Badyal for at least the reasons that claim 1 is patentable over Goodwin in view of Badyal.

Claims 2-4, 10, 12, 13, 19-21, 24 and 26 each recite combinations of features of independent claim 1, and hence claims 2-4, 10, 12, 13, 19-21, 24 and 26 are patentable over Goodwin in view of Badyal for at least the above-stated reasons that claim 1 is patentable over Goodwin in view of Badyal.

3. Claim 28-31 is patentable over Goodwin in view of Badyal for at least the reasons that claim 27 is patentable over Goodwin in view of Badyal.

Claims 28-31 each recite combinations of features of independent claim 27, and hence claims 28-31 are patentable over Goodwin in view of Badyal for at least the above-stated reasons that claim 27 is patentable over Goodwin in view of Badyal.

4. Claim 12 is patentable over Goodwin in view of Badyal.

Applicant respectfully asserts that Goodwin and Badyal, taken singly or in combination, do not teach or suggest "that the exciting medium is created by a pulsed flux of ionised particles or radicals" as recited in claim 12. The Examiner cites paragraph [0010] of Goodwin as teaching the above-cited claim limitation. Office Action (12/19/2006), page 6. Applicant respectfully traverses.

Goodwin instead teaches that any conventional means for generating an atmospheric pressure plasma glow discharge may be used in the preset invention, for example atmospheric pressure plasma jet, atmospheric pressure microwave glow

discharge and atmospheric pressure glow discharge. [0010]. There is no language in the cited passage that teaches that the exciting medium is created by a pulsed flux of ionised particles. Neither is there any language in the cited passage that teaches that the exciting medium is created by a pulsed flux of radicals. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claim 12, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

5. Claim 26 is patentable over Goodwin in view of Badyal.

Applicant respectfully asserts that Goodwin and Badyal, taken singly or in combination, do not teach or suggest "that the coated substrate is subject to derivatization" as recited in claim 26. As understood by Applicant, the Examiner asserts that Goodwin inherently teaches the above-cited claim limitation as Goodwin allegedly teaches the same substrate material and the same coating forming material. Office Action (12/19/2006), page 6. Applicant respectfully traverses.

The Examiner must provide a basis in fact and/or technical reasoning to support the assertion that by Goodwin allegedly teaching the same substrate material and the same coating forming material that it necessarily implies that Goodwin teaches that the coated substrate is subject to derivatization. *See Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). That is, the Examiner must provide extrinsic evidence that must make clear that by Goodwin allegedly teaching the same substrate material and the same coating forming material that it necessarily implies that Goodwin teaches that the coated substrate is subject to derivatization, and that it would be so recognized by persons of ordinary skill. *See In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999). Since the Examiner has not provided any such objective evidence, the Examiner has not presented a *prima facie* case of obviousness for rejecting claims 26. M.P.E.P. §2143.

C. Claim 22 is not properly rejected under 35 U.S.C. §103(a) as being unpatentable over Gitzhofer in view of Heinecke and Wang.

1. Gitzhofer, Heinecke and Wang, taken singly or in combination, do not teach or suggest the following claim limitations.

Applicant respectfully asserts that Gitzhofer, Heinecke and Wang, taken singly or in combination, do not teach or suggest "that the atomised coating forming material is deposited via a nebulizer supplied with coating forming material in the form of a liquid or liquid/solid slurry and a carrier gas" as recited in claim 22. The Examiner cites column 2, lines 47-51 and 55-64 as well as column 4, lines 3-5 of Wang as teaching the above-cited claim limitation. Office Action (12/19/2006), page 8. Applicant respectfully traverses.

Wang instead teaches that it is yet another object of this invention to provide a process for the production of coatings which is suitable for the large-scale production of such coatings. Column 2, lines 47-49. Wang further teaches that it is yet another object of this invention to provide a process for the production of coatings which can be used to produce complex, coated shaped articles. Column 2, lines 50-52. Wang additionally teaches that there is provided an atmospheric process for the production of a coating or a film. Column 2, lines 55-57. Furthermore, Wang teaches that in the first step of the process, an aerosol mist containing reactants necessary to form the coating is provided. Column 2, lines 57-59. Wang further teaches that thereafter, a mist is subjected to radio-frequency radiation while in the plasma region. Column 2, lines 59-60. Furthermore, Wang teaches that during the time solution 10 is being caused to mist, it is preferably contacted with carrier gas to apply a pressure to the solution and mist. Column 4, lines 3-5.

There is no language in the cited passages that teaches that the atomised coating forming material is deposited via a nebulizer. Neither is there any language in the cited passages that teaches that the atomised coating forming material is deposited via a nebulizer supplied with coating forming material in the form of a liquid and a carrier gas. Neither is there any language in the cited passages that teaches that the atomised coating forming material is deposited via a nebulizer supplied with coating forming material in the form of a liquid/solid slurry and a carrier gas. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claim 22, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

2. Examiner's motivation for modifying Gitzhofer with Wang to include the missing claim limitation of claim 22 is insufficient to establish a *prima facie* case of obviousness.

As stated above, most if not all inventions arise from a combination of old elements. See *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Obviousness is determined from the vantage point of a hypothetical person having ordinary skill in the art to which the patent pertains. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Therefore, an Examiner may often find every element of a claimed invention in the prior art. *Id.* However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. See *Id.* In order to establish a *prima facie* case of obviousness, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998). That is, the Examiner must provide some suggestion or motivation, either in the references themselves, the knowledge of one of ordinary skill in the art, or, in some case, the nature of the problem to be solved, to modify the reference or to combine reference teachings. See *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). Whether the Examiner relies on an express or an implicit showing, the Examiner must provide particular findings related thereto. *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

The Examiner admits that Gitzhofer does not teach or suggest "that the atomised coating forming material is deposited via a nebulizer supplied with coating forming material in the form of a liquid or liquid/solid slurry and a carrier gas" as recited in claim 22. Office Action (12/19/2006), page 7. The Examiner asserts that Wang teaches the above-cited claim limitations. *Id.* at pages 7-8. The Examiner's motivation for modifying Gitzhofer with Wang to include the above-cited claim limitations is "because the carrier gas facilitates the formation of plasma and facilitates the movement of the mist from the misting chamber to the plasma region." *Id.* at page 8. The Examiner's motivation is insufficient to establish a *prima facie* case

of obviousness in rejecting claim 22.

The Examiner has not provided a source for her motivation for modifying Gitzhofer to include the above-cited claim limitation. The Examiner simply states "because the carrier gas facilitates the formation of plasma and facilitates the movement of the mist from the misting chamber to the plasma region" as motivation for modifying Gitzhofer to include the above-cited claim limitation. The motivation to modify Gitzhofer must come from one of three possible sources: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-48 (Fed. Cir. 1998). Applicant respectfully requests the Examiner to point out which of these sources is the source of the Examiner's motivation³. The Examiner has not provided any evidence that her motivation comes from any of these sources. Instead, the Examiner is relying upon her own subjective opinion which is insufficient to support a *prima facie* case of obviousness. *In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2002). Consequently, the Examiner's motivation is insufficient to support a *prima facie* case of obviousness for rejecting claim 22. *Id.*

The Examiner's motivation ("because the carrier gas facilitates the formation of plasma and facilitates the movement of the mist from the misting chamber to the plasma region") does not provide reasons, as discussed further below, that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of

³ Applicant feels it is very important for the Examiner to point out the source of the Examiner's motivation because it appears to Applicant that the Examiner is relying upon her own subjective opinion. The reason why the Federal Circuit (*In re Lee*, 61 U.S.P.Q.2d 1430, 1434 (Fed. Cir. 2000)) has required the Examiner to provide objective evidence is because it may be easy to conclude that it would be obvious to combine references using hindsight reasoning even though there is no motivation or suggestion to do so. One can usually find a reason to combine references or make modifications to the main reference. If that were all it took, then all inventions would be obvious and not patentable. For example, assuming that a wheelbarrow had never been developed and a patentee had claimed a wheelbarrow, if the main reference taught a cart with a shallow box body, and the secondary reference taught two wheels, then the Examiner could simply assert, using hindsight reasoning without providing objective evidence, that the motivation for combining the two references is so that the cart could be moved from place to place. Hence, the patentee could not obtain a patent on the wheelbarrow (even though one has never been developed) based on the Examiner's rationale for combining the references. Yet the Examiner has not provided any evidence that a person of ordinary skill in the art would have combined the references to make such a product. In hindsight, everything is obvious. It seems that a question that should be asked is why the invention (in this example a wheelbarrow) was not already developed. If it is so obvious, then it would seem it already would have been developed.

the claimed invention, would modify Gitzhofer to include the above-indicated missing claim limitation of claim 22. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claim 22. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

Gitzhofer addresses the problem of having plasma deposition of particulate materials, such as ceramic and metallic powders. Column 1, lines 21-30. Particulate materials refers to tiny particles of solid or liquid suspended in a gas. See <http://en.wikipedia.org/wiki/Particulate>. The Examiner has not provided any reasons as to why one skilled in the art would modify Gitzhofer (which teaches plasma deposition of particulate materials, such as ceramic and metallic powders) to have the atomised coating forming material deposited via a nebulizer supplied with coating forming material in the form of a liquid or liquid/solid slurry and a carrier gas (missing claim limitation). The Examiner's motivation ("because the carrier gas facilitates the formation of plasma and facilitates the movement of the mist from the misting chamber to the plasma region") does not provide such reasoning.

Why would the reason to modify Gitzhofer (whose purpose is to deposit particulate materials, such as ceramic and metallic powders using a plasma deposition method) to have the atomised coating forming material deposited via a nebulizer supplied with coating forming material in the form of a liquid or liquid/solid slurry and a carrier gas (missing claim limitation) be to facilitate the formation of plasma and facilitate the movement of the mist from the misting chamber to the plasma region? Gitzhofer does not have a misting chamber. Gitzhofer is not concerned with facilitating the movement of a mist from a misting chamber to a plasma region. The Examiner cannot completely ignore the teachings of Gitzhofer in concluding it would have been obvious to modify Gitzhofer to include the missing claim limitation of claim 22. Hence, the Examiner's motivation does not provide reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would modify Gitzhofer to include the missing claim limitation of claim 22. Accordingly, the Examiner has not presented a *prima facie* case of obviousness for rejecting claim 22. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1458 (Fed. Cir. 1998).

V. PROVISIONAL REJECTION UNDER OBVIOUSNESS-TYPE DOUBLE PATENTING:

The Examiner has provisionally rejected claim 1 under the judicially created doctrine of obviousness-type double patenting in view of claim 14 of copending Application No. 10/514,661. Further, the Examiner has provisionally rejected claims 6-11, 14, 20-23 and 30 under the judicially created doctrine of obviousness-type double patenting in view of claims 1, 5-8, 11 and 15-22 of copending Application No. 10/514,661.

Since none of these Applications at issue have been allowed, Applicant defers responding to this rejection.

Applicant notes that if the "provisional" double patenting rejection is the only rejection remaining in an application (either the present application or in Application No. 10/514,661), then the Examiner should withdraw the rejection and permit that application to issue as a patent. M.P.E.P. §804. The "provisional" double patenting rejection may then be converted into a double patenting rejection in the other application at the time the one application issues as a patent. M.P.E.P. §804.

VI CONCLUSION:

As a result of the foregoing, it is asserted by Applicant that claims 1-31 in the Application are in condition for allowance, and Applicant respectfully requests an allowance of such claims. Applicant respectfully requests that the Examiner call Applicant's attorney at the below listed number if the Examiner believes that such a discussion would be helpful in resolving any remaining issues.

Respectfully submitted,

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